REMARKS

Claims 1-15 have been canceled without prejudice. New claims 16-35 have been added. No new matter has been added as the new claims are fully supported by the specification as-filed.

Since the original claims have been canceled, the specific rejections offered by the Examiner are now moot. However, to assist in the examination of the new claims, the applicant distinguishes the new claims over the prior art relied upon by the Examiner herein:

Concerning Double Patenting

A terminal disclaimer is filed concurrently herewith thereby obviating any provisional double patenting rejection. Please charge my deposit account (no. 502808) **$55** as required by 37 CFR 1.20(d).

Concerning the 35 U.S.C. 112, Second Paragraph Claim Rejections

The offending claims have been canceled without prejudice. Furthermore, the specific terms which the Examiner considered indefinite do not appear in the new claims.

Concerning the 35 U.S.C. 102 And 35 U.S.C. 103 Claim Rejections

The Examiner rejected claims 1, 2, 7, 9 and 13 under 35 U.S.C. 102 as being anticipated by Lux (UK Pat. No. 367,063). Particularly, the Examiner contends that Lux teaches beer that is rich in vitamins, minerals, antioxidants and protein. The Examiner also rejected claims 3-6, 8 and 10-12 under 35 U.S.C. 103 as being obvious in view of Lux. The Examiner contends that although Lux is silent concerning the exact amounts of nutrients added to the beer, the thrust of Lux makes it obvious to optimize the claimed ingredients to produce a beer that is the most nutritious.

The Lux Reference:

To understand the significant and considerable differences between the beer product of Lux and the subject matter claimed in relation to embodiments of the present invention, a review and summarization of the teachings of Lux is in order. Lux teaches to generally brew beer in a conventional manner. However, rather than discard the yeast that is filtered from the brew, Lux instructs to (1) break the cell wall of the filtered yeast to expose the yeast's cell sap, and (2) return the destroyed yeast cell or an extract of the cell sap to the beer. When the entire contents of the destroyed yeast cell are returned to the beer, the beer is subsequently refiltered to remove the insoluble yeast constituents (such as the cell wall and presumably, insoluble proteins), thereby leaving only the soluble vitamin containing sap in the beer. Accordingly, the vitamin B and vitamin E content of the beer is increased as Lux teaches that the yeast is high in those nutrients. No mention is made of the content of any other nutrients being enhanced because of the process taught in Lux.

A review of literature found on the internet concerning Brewer's yeast supplements yields some information concerning the nutritional content of the yeast. It is to be appreciated that supplemental brewer's yeast is especially cultivated (i.e. grown on pure cane sugar or sugar beets) to maximize it nutritional value and that brewer's yeast byproducts from the brewing of beer are not likely to have as-high a nutritional value as the supplemental variety. In general, yeast is very high in B-complex vitamins specifically B1, B2, B6 and to a slightly lesser extent B12. Brewer's yeast also contains a very small amount of the antioxidant selenium and of iron. Brewer's yeast supplements DO NOT contain appreciable amounts of Vitamin C or Vitamin A. Also interestingly, the nutritional information of the various brewer's yeast supplements indicate that the yeast does not contain Vitamin E, which contradicts the Lux reference. Given the totality of information provided on the internet by various suppliers of brewer's yeast, it is reasonable to conclude that in fact brewer's yeast does not contain vitamin E and contrary to the teachings of Lux, adding brewer's yeast cell sap to beer WILL NOT increase the vitamin E

content of the resulting beer. About 53% of the weight of Brewer's yeast supplements are protein, the remainder being primarily carbohydrates.

The specific content of various nutrients of supplemental brewer's yeast is given in Appendix A. To summarize, a 30 gram serving has: 16 grams of protein; 80% of the DV of vitamin B1; 90% of the DV of vitamin B2; 40% of the DV of vitamin B6; 5% of the DV of vitamin B12; 0% of the DV of vitamin C; 0% of the DV of Vitamin A; 10% of the DV of iron; 8% of the DV of magnesium; 0% of the DV of calcium; and 63.4 mcg of selenium.

In brewing beer, approximately 5-15 grams of yeast is utilized to make a 5 gallon batch. Assuming 15 grams of yeast are used in the brewing process and all the yeast is recovered and reintroduced into the beer (discounting for the moment, the loss of yeast weight by discarding the cell walls) there would only be 0.28 grams of yeast in each 12 ounce serving of the resulting beer, or about 0.8 grams of yeast in each liter of beer. Doing very simple math quickly leads to the conclusion that very little nutritional value is added to the beer. For example, if 30 grams of yeast provides 90% of the DV of vitamin B2, than 0.28 grams of yeast would ONLY provide less than 1% of the DV in Vitamin B2. Of course the DVs for the other B vitamins would be even less. Concerning protein, only about 0.15 grams of protein at most would be added to a 12 ounce serving of the beer using the recovered yeast. However, the cell wall of the yeast is made mostly of protein and it probably contains most of the protein associated with the yeast. Since Lux teaches to discard the insoluble cell wall, the actual amount of protein supplementation added to the beer is likely to be negligible. Certainly, Lux itself doesn't contradict this supposition since nowhere in Lux is it mentioned or suggested that the protein content of the beer would be supplemented by adding the yeast cell sap thereto.

If we assume that the cell wall is mixed into the beer, other problems are created, since we know based on the teachings of Lux that the cell wall is largely insoluble. The process of removing the expended yeast from the beer is performed for at least two significant reasons: (1)

the yeast is generally bitter, negatively affecting the taste of the beer; and (2) the yeast makes the beer cloudy and unpalatable in appearance. Further, in order to raise the protein content of the beer to the level required in claim 16 for the clamed non-brewed beverage over at least 7 times the amount of yeast needed to make the beer would have to be added to the beer. If the normal amount of yeast needed to make the beer is almost always removed from a traditionally brewed beer because of the foregoing issues, imagine what the look and taste of a beer having at least 7 times as much yeast would be.

Additionally, because the yeast and even its cell sap contains many ingredients, the yeast whether with the cell walls or without the cell walls would negatively impact the taste of the beer product if it is added in the necessary concentrations to achieve the nutrient levels required by the claims. Finally, no matter what concentration of yeast is added to the beer as taught in Lux with or without the cell walls, no vitamin C or vitamin A will be added to the beer. No matter whether the insoluble cell walls are included with the yeast and the yeast is added in the necessary amounts to achieve the claimed levels of protein, the protein will not comprise soluble hydrolyzed protein as specifically required by the claims.

Anticipation under 35 U.S.C. 102:

In order to present a sustainable prima facie case of anticipation for a claim, the reference must explicitly or implicitly teach each and every limitation of the claim. If even one limitation is not taught in the relied upon reference, than the reference cannot anticipate the claim. The differences between each of the independent claims (and some of the dependant claims) and the Lux reference are provided supra.

Prima Facie Obviousness under 35 U.S.C. 103:

In order for a claim to be prima facie obvious in view of one or more references in combination, three criteria MUST be met: (1) ALL the limitations of the claim must be

expressly or implicitly taught or suggested by the references; (2) there must be a motivation to combine or modify the references, either in the references themselves or in knowledge generally available to one of ordinary skill in the art; (3) and there must be a reasonable expectation of success that the combined references will result in an embodiment of the claim. If even one of these criteria are not met, a prima facie case of obviousness is not established.

Concerning The *In re Levin Case* cited by the Examiner:

The *In re Levin* case is inapposite to the pending claims and this application. Oddly, the Examier cited this case in the section of his office action relating to the 35 U.S.C. 103 claim rejections. The case, however, was decided in 1949 before the existence of 35 U.S.C. 103 and the obviousness standard. Prior to 1953, the standard was inventiveness, and this is the standard discussed and ruled upon in the *In re Levin* case. The inventiveness standard ceased to exist after 35 U.S.C. 103 was passed. In this regard, *In re Levin* is no longer applicable law concerning patentability. Later enacted Statutory law trumps earlier rendered case law.

In general, *In re Levin* provides a per se rule concerning the patentability of food stuffs. Perhaps, this rule was necessary in the pre 35 U.S.C. 103 days of patent law, but since then the courts have clearly indicated the only basis for denying patentability to a useful invention is the lack of novelty or obviousness as specifically described in the 35 U.S.C. 102 and 35 U.S.C. 103. The Examiner may want to read more recent case law concerning the patentability of software, business methods, and living organisms. These cases expound on the proper manner of determining patentability and eschew the use of judicially created exceptions to the proper and required application of 35 U.S.C. 102 and 103. See generally *AT&T v. Excel Communications Inc., 172 F.3d 1352 (Fed. Cir. 1999); State Street Financial v. Signature Financial, 149 F.3d 1368 (Fed. Cir. 1998); and In re Chakrabarty, 447 U.S. 303 (1980).* Even more directly on point, the Federal Circuit made it very clear in 1995 that there are no per se rules when

determining obviousness under 35 U.S.C. 103. *In re Ochiai, 71 F.3d 1565, 1572 (Fed. Cir. 1995).*

Although not binding precedent but definitely persuasive, the Board of Patent Appeals has also weighed-in specifically concerning the per se rule of *In re Levin* and food stuffs in *Ex parte Earl L. Johnson,* which is attached hereto as Appendix B. This case is also very illuminating in so much as it also relates to a beverage product. In short, the board held that the rule in *In re Levin* was not applicable to the claimed beverage's patentability.

The New Claims

Claim 16 and its dependant claims 17-28:

Claim 16 recites a non-brewed beverage comprising 0.45-40% alcohol by volume in combination with dissolved hydrolyzed protein in a concentration of 3.3 grams to 50 grams per liter. This concentration is equivelent to about 1.2 - 18 grams of protein in a 12 ounce serving of beer.

There are at least three major reasons why Lux does not anticipate claim 16 and its dependant claims. First, Lux is not a non-brewed beverage. Claim 16 recites a non-brewed beverage.

Second, even if the requirement we ignore the claim 16 requirement that the beverage be non-brewed, Lux still fails to anticipate claim 16 since Lux does not teach adding protein to an alcoholic beverage. As discussed above, yeast sap is very low in protein such that adding a enough yeast to a beverage to meet the requirements of claim 16 would significantly effect the taste of the beverage. It is noted that the Lux reference teaches against additions to a beer that negatively affect the product's taste. Even if the protein levels necessitated by claim 16 can be achieved by adding destroyed yeast sap, or destroyed yeast including the cell walls, the protein in

the yeast is neither hydrolyzed nor soluble as specifically required in the claim. Further, if the entire yeast cell were added to the beverage including the insoluble cell walls, the beverage would cease to be "one of substantially clear and substantially translucent" as also specifically required by the claim.

Third, again ignoring the non-brewed requirement, Lux does not teach or suggest to supplement the beverage with vitamin C. As discussed above, Lux only teaches adding destroyed brewer's yeast to the beer. Brewer's yeast does not contain vitamin C. Further, there is no suggestion that vitamin C be added to the beer as the Lux reference repeatedly teaches that "only those materials which themselves are used in the production of the beverage" should be used as not to negatively effect the taste and lasting properties of the beer.

For at least all of the foregoing reasons, Lux does not teach or suggest each and every the limitation of claim 16. Accordingly, claim 9 and dependant claims 17-28 are not anticipated under 35 U.S.C. 102 by the relied upon reference.

The Examiner may be tempted to argue that claim 16 is prima facie obvious under 35 U.S.C. 103 in view of Lux. However, such an assertion would fail to satisfy all three of the required prima facie obviousness criteria. First there is no teaching or suggestion in Lux that protein, let alone hydrolyzed protein, be added to alcoholic beverage in the amount required in the claim. Further, there is no teaching or suggestion in Lux that vitamin C be added to an alcoholic beverage. Finally, there is no suggestion that the beverage could be of the non-brewed variety. Certainly, no other evidence has been provided to indicate that it would have been obvious for one of ordinary skill in the art to add vitamin C or hydrolyzed protein to beer of Lux let alone make an alcoholic beverage other than a malt beverage. If in fact it was the Examiner's intent to take judicial notice of: (1) the existence of non-brewed alcoholic beverages; (2) the nutrients not provided for in the required quantities in the Lux reference; and (3) the knowledge

of adding these nutrients to an alcoholic beverage, than the applicant traverses such assertions and requests the Examiner provide a citations to support his position. See MPEP 2144.03.

The Examiner's obviousness assertion has also fails to satisfy the requirement that there be a motivation to combine the references. Lux specifically teaches not to add ingredients that are not part of the materials used to make the Lux beer. The reference clearly suggests that adding foreign ingredients to the Lux beer (such as the vitamin C and hydrolyzed protein supplements of claim 16) are not desirable. In effect, Lux teaches away from the beverage product recited in claim 16, and certainly it does not provide any motivation to add protein or additional vitamins other than the B vitamins that are contained in the recovered and subsequently destroyed yeast.

Finally, the Examiner's obviousness assertion fails to meet the third criteria that there is a reasonable chance of success concerning the modification of the Lux reference. As discussed above the protein available in the recovered yeast is contained substantially within the cell walls of the yeast. Lux teaches to discard the cell walls as they are not soluble in the beer. Standard beer making practice teaches to discard the yeast cells as they cloud the beer product and introduce solids into the beverage that both negatively effect the beer's taste and give the beer an undesirable texture. To meet the protein requirements of claim 16, at least 7 times the amount of yeast used to make the Lux beer would be required to meet the minimum protein supplementation required by claim 16. Certainly, if the normal amount of yeast makes a beer undesirable and unpalatable, seven or more times as much yeast would not result in a satisfactory beer product. Additionally, there is the requirement that the protein of claim 16 be both hydrolyzed and dissolved to result in an either clear or translucent final product. The insoluble protein products of the yeast is neither. Finally, Lux describes a brewed product and there is no basis to compare this malted and brewed beverage with a non-brewed alcoholic beverage.

For at least the foregoing reasons, The relied upon reference does not teach, suggest or motivate an embodiment of claim 16. Accordingly, claim 16 and dependant claims 17-28 are not rendered prima facie obvious under 35 U.S.C. 103, and are in a condition of allowance.

Concerning claim 19, the hydrolyzed protein comprises whey. Lux teaches only to add destroyed brewer's yeast to the beverage not whey or any other substance foreign to the manufacture of the Lux beer. Accordingly for this additional reason, claim 19 is further differentiated over the prior art.

Concerning claim 20, the hydrolyzed protein comprises rice protein. Lux teaches only to add destroyed brewer's yeast to the beverage not rice protein or any other substance foreign to the production of the Lux beer. Accordingly for this additional reason, claim 20 is further differentiated over the prior art.

Concerning claim 23, a peppermint schnapps type beverage is recited having an alcohol concentration of about 40%. Lux does not teach, suggest or motivate the production of a peppermint flavored non-brewed high alcohol content beverage that contains vitamin and/or protein supplementation. Accordingly for this additional reason, claim 23 is further differentiated over the prior art.

Concerning claim 24, a non-brewed beverage with flavor extract from a list of sources is recited. Lux does not teach, suggest or motivate the production of a flavored non-brewed alcoholic beverage that contains vitamin and/or protein supplementation. Accordingly for this additional reason, claim 24 is further differentiated over the prior art.

Concerning claim 25, a non-brewed beverage is recited that includes added sweeteners from the specified list. Lux does not teach, suggest or motivate the production of a sweetened non-brewed alcoholic beverage,that contains vitamin and/or protein supplementation. Accordingly for this additional reason, claim 25 is further differentiated over the prior art.

Concerning claim 26, a non-brewed beverage is recited that includes added caffeine. Lux does not teach, suggest or motivate the production of a caffeinated non-brewed alcoholic beverage that contains vitamin and/or protein supplementation. Accordingly for this additional reason, claim 26 is further differentiated over the prior art.

Claim 29 and its dependant claims 30-32:

Claim 29 recites a brewed malt beverage by way of the process for making the beverage. Accordingly, claim 29 is a product by process claim. Of particular note in the claim are the operations of "mixing and dissolving whey protein, vitamin concentrate including vitamin C, ascorbic acid antioxidant, and buffering agents into filtered water; and blending the water mixture to the pale beer". Lux does not teach, suggest, or motivate either of these operations. Further, the resulting product is one that contains whey protein and vitamin C, both of which are not discussed and are not present in the Lux beer. In fact, as discussed above, Lux specifically teaches against adding foreign substances to beer. Both the whey protein and the vitamin C are not part of the brewing process of Lux, and accordingly, Lux teaches away from the product by process of claim 29 and its dependent claims.

Claim 33 and its dependant claims 34 & 35:

Claim 33 pertains an alcoholic beverage including 3.3 to 50 grams per liter of hydrolyzed protein that is one of substantially clear and substantially translucent. As discussed in detail above, Lux does not teach, suggest or motivate to supplement the level of protein in the beer described in Lux to the extent required in the present invention in general and claim 33 in particular. Further, if the protein could be supplemented using brewer's yeast to the required concentration, the resulting beverage would not be either substantially clear or translucent as required by claim 33, since the cells wall of the yeast are not soluble in the beverage.

Accordingly for at least these reasons, claim 33 and its dependant claims are in a condition of allowance over the relied upon prior art.

Conclusion

The applicant believes the objections and the rejections of the Office Action have been overcome through amendment and remark. Accordingly, the application and all pending claims are in a condition of allowance. The Examiner is respectfully requested to contact the undersigned at 303.921.9536 if there are any other outstanding issues that would prevent the expeditious issuance of a Notice of Allowance in this case.

Petition for Extension of Time under 37 CFR 1.136(a)

The applicant respectfully petitions for a two month extension of time to respond to the outstanding Office Action pursuant to 37 CFR 1.136(a). Please charge deposit account 502808 the **$210.00** amount due.

Information Disclosure Statement

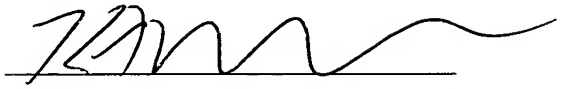
An IDS has been filed herewith. Please considered the enclosed references. Please charge deposit account no. 502808 **$180.00** for the submission of an IDS after receipt of the first Office Action.

Charge the Deposit Account

Please charge any shortage to my deposit account no. 502808.

Dated this 23 day of October, 2003

Respectfully submitted,



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